

CLAIMS

What is claimed is:

1. A method of filling holes using a fill material passing through a pressure fill head comprising:
causing fill material to enter the fill head;
modifying the viscosity of the fill material while it is within the fill head; and
causing the modified viscosity fill material to exit the fill head and enter at least one hole.
2. The method of claim 1 wherein the step of modifying the viscosity of the fill material includes modifying the viscosity from a viscosity V1 prior to entering the fill head to a viscosity V2 upon exiting the fill head, wherein V2 is at least 1% less than V1.
3. The method of claim 1 wherein the step of modifying the viscosity of the fill material includes modifying a temperature of the fill material from a temperature T1 prior to entering the fill head to a temperature T2 upon exiting the fill head wherein T1 does not equal T2.
4. The method of claim 3 wherein T2 is at least 5% greater than T1.
5. The method of claim 3 wherein T2 is at least 23 degrees Celsius.
6. The method of claim 1 wherein the fill head comprises a heating element positioned to heat the fill head, and positioned so as not to contact any fill material passing through the fill head and wherein the step of modifying the viscosity of the fill material involves heating the fill head to indirectly heat the fill material.
7. The method of 6 wherein the step of modifying the viscosity of the fill materials includes causing a heated fluid to pass through the heating element of the fill head while the fill material is passing through the fill head.

8. The method of 7 wherein the heated fluid is one of: ethylene glycol/water, oil, and water.
9. The method of 6 wherein the step of modifying the viscosity of the fill material includes providing an electric current to a heating element coupled to the fill head while the fill material is passing through the fill head.
10. The method of 1 wherein the fill head comprises a heating element positioned within a flow path of the fill material passing through the fill head and wherein the step of modifying the viscosity of the fill material includes heating the fill material directly.